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\* \* \* \* \* \* \* \* \* \* \* \* Welcome to STN International \* \* \* \* \* \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 DEC 01 ChemPort single article sales feature unavailable  
NEWS 3 JUN 01 CAS REGISTRY Source of Registration (SR) searching enhanced on STN  
NEWS 4 JUN 26 NUTRACEUT and PHARMAML no longer updated  
NEWS 5 JUN 29 IMSCOPROFILE now reloaded monthly  
NEWS 6 JUN 29 EPFULL adds Simultaneous Left and Right Truncation (SLART) to AB, MCLM, and TI fields  
NEWS 7 JUL 09 PATDPAFULL adds Simultaneous Left and Right Truncation (SLART) to AB, CLM, MCLM, and TI fields  
NEWS 8 JUL 14 USGENE enhances coverage of patent sequence location (PSL) data  
NEWS 9 JUL 27 CA/Cplus enhanced with new citing references  
NEWS 10 JUL 16 GBFULL adds patent backfile data to 1855  
NEWS 11 JUL 21 USGENE adds bibliographic and sequence information  
NEWS 12 JUL 28 EPFULL adds first-page images and applicant-cited references  
NEWS 13 JUL 28 INPADOCDB and INPAFAMDB add Russian legal status data

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,  
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* \* \* \* \* \* \* \* STN Columbus \* \* \* \* \* \* \* \* \* \* \* \*

FILE 'HOME' ENTERED AT 17:49:50 ON 08 AUG 2009

=> s evaporator and ("plate-type" or plate or "plate type")

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> file caplus  
COST IN U.S. DOLLARS  
SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 1.10 1.10

FILE 'CAPLUS' ENTERED AT 17:52:30 ON 08 AUG 2009  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 8 Aug 2009 VOL 151 ISS 7  
FILE LAST UPDATED: 7 Aug 2009 (20090807/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

Cplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 22.

=> s evaporator and ("plate-type" or plate or "plate type")  
27984 EVAPORATOR  
16939 EVAPORATORS  
35557 EVAPORATOR  
          (EVAPORATOR OR EVAPORATORS)  
453332 "PLATE"  
268400 "PLATES"  
615507 "PLATE"  
          ("PLATE" OR "PLATES")  
2078636 "TYPE"  
690628 "TYPES"  
2612312 "TYPE"  
          ("TYPE" OR "TYPES")  
3773 "PLATE-TYPE"  
          ("PLATE" "(W)" "TYPE")  
453332 PLATE  
268400 PLATES  
615507 PLATE  
          (PLATE OR PLATES)  
453332 "PLATE"

268400 "PLATES"  
615507 "PLATE"  
    ("PLATE" OR "PLATES")  
2078636 "TYPE"  
690628 "TYPES"  
2612312 "TYPE"  
    ("TYPE" OR "TYPES")  
3773 "PLATE TYPE"  
    ("PLATE" (W) "TYPE")  
L1     2146 EVAPORATOR AND ("PLATE-TYPE" OR PLATE OR "PLATE TYPE")  
  
=> s 11 and "falling-film"  
    37062 "FALLING"  
        8 "FALLINGS"  
    37069 "FALLING"  
        ("FALLING" OR "FALLINGS")  
1179694 "FILM"  
958928 "FILMS"  
1516714 "FILM"  
    ("FILM" OR "FILMS")  
3931 "FALLING-FILM"  
    ("FALLING" (W) "FILM")  
L2     163 L1 AND "FALLING-FILM"  
  
=> s 12 and ("micro-channel" or "micro channel")  
210339 "MICRO"  
    366 "MICROS"  
210688 "MICRO"  
    ("MICRO" OR "MICROS")  
344323 "CHANNEL"  
200088 "CHANNELS"  
437094 "CHANNEL"  
    ("CHANNEL" OR "CHANNELS")  
2127 "MICRO-CHANNEL"  
    ("MICRO" (W) "CHANNEL")  
210339 "MICRO"  
    366 "MICROS"  
210688 "MICRO"  
    ("MICRO" OR "MICROS")  
344323 "CHANNEL"  
200088 "CHANNELS"  
437094 "CHANNEL"  
    ("CHANNEL" OR "CHANNELS")  
2127 "MICRO CHANNEL"  
    ("MICRO" (W) "CHANNEL")  
L3     0 L2 AND ("MICRO-CHANNEL" OR "MICRO CHANNEL")  
  
=> s 12 and ("gap-type" or "gap type")  
254807 "GAP"  
    42514 "GAPS"  
280475 "GAP"  
    ("GAP" OR "GAPS")  
2078636 "TYPE"  
690628 "TYPES"  
2612312 "TYPE"  
    ("TYPE" OR "TYPES")  
354 "GAP-TYPE"  
    ("GAP" (W) "TYPE")  
254807 "GAP"  
    42514 "GAPS"  
280475 "GAP"  
    ("GAP" OR "GAPS")

2078636 "TYPE"  
690628 "TYPES"  
2612312 "TYPE"  
    ("TYPE" OR "TYPES")  
354 "GAP TYPE"  
    ("GAP" (W) "TYPE")  
L4     0 L2 AND ("GAP-TYPE" OR "GAP TYPE")

=> s 12 and (groove or grooved)  
61973 GROOVE  
32774 GROOVES  
85206 GROOVE  
    (GROOVE OR GROOVES)  
8141 GROOVED  
L5     3 L2 AND (GROOVE OR GROOVED)

=> d 15 1-3 abs ibib

L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
AB Using structured, in particular, grooved plates is a promising way to enhance the heat transfer rate in thin film evaporators. The mechanisms of the plate topog. effect on the wave motion and heat and mass transport are still not completely understood. In the present work the film thickness evolution on smooth and structured plates was measured for different inclination angles, different Reynolds nos. and at various distances from the inlet. The measurements were taken using a confocal chromatic sensoring (CHR) technique. The flow patterns in falling liquid films on heated smooth and structured plates were visualized using IR thermog. The effect of flow parameters, wall topog. and heating rate on the observed two- and three-dimensional patterns and on the wall temperature distribution was studied.

The temperature distribution in the thermal entrance region was investigated numerically. The numerical predictions were compared with exptl. data.

ACCESSION NUMBER: 2007:1235868 CAPLUS  
DOCUMENT NUMBER: 147:451090  
TITLE: Hydrodynamics and heat transfer of thin films flowing down inclined smooth and structured plates  
AUTHOR(S): Loeffler, K.; Yu, H.; Gambaryan-Roisman, T.; Stephan, P.  
CORPORATE SOURCE: Chair of Technical Thermodynamics, Technische Universitaet Darmstadt, Darmstadt, 64287, Germany  
SOURCE: Fortschritt-Berichte VDI, Reihe 3: Verfahrenstechnik (2007), 683, 127-142  
CODEN: FVFEK; ISSN: 0178-9503  
PUBLISHER: VDI Verlag GmbH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
AB A review with 37 refs. on the 1992 beet sugar harvest, as well as new tech. developments, is presented, discussing: new sugar factories, beet production and yields, East-West comparison, weather conditions and molasses analyses, photometric measurement of white sugar color, alternative clarifying agents in factory labs., pulp pressing, principles of color formation, sugar factory studies, simplified preliming technol., scales in centrifuges, NH3 stripping, biol. N removal, tech. value of sugar beets, new tech. school plant, state of investigations, analyses of beet components, range of beet and molasses qualities, plate heaters and evaporators, k-values of falling film

and plate evaporators, grooved heating tubes, novel falling film evaporators, juice levels in Robert and continuous flow evaporators, and pan seeding points.

ACCESSION NUMBER: 1993:673745 CAPLUS  
 DOCUMENT NUMBER: 119:273745  
 ORIGINAL REFERENCE NO.: 119:48961a,48964a  
 TITLE: The 1992 harvest and new technical developments  
 AUTHOR(S): Buchholz, Klaus; Bruhns, Martin  
 CORPORATE SOURCE: Inst. Landwirtschaft. Technol. Zuckerind., TU Braunschweig, Braunschweig, D-3300, Germany  
 SOURCE: Zuckerindustrie (Berlin, Germany) (1993), 118(5), 321-38  
 CODEN: ZUCKDI; ISSN: 0344-8657  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: German  
 OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
 (3 CITINGS)

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

AB The falling-film evaporator, e.g., for brine, comprises a fluid-tight shell within which are mounted a number of thin-walled, plastic, vertical tubes. The upper ends of these tubes (wall thickness  $\leq 100 \mu$ ) are joined by a multicomponent, threaded, connecting unit to tubular fittings that pass through the metal or plastic tube plate, which is fixed horizontally to the lateral wall of the shell, and the lower ends of the tubes are connected via manifolds to discharge pipes. The tubular fittings have a grooved external surface for passage of the liquid to be evaporated onto the outer surface of the tubes. The tube plate delimits within the upper portion of the shell a chamber which is subdivided to provide supply reservoirs. A hot gas is circulated through the tubes.

ACCESSION NUMBER: 1979:206349 CAPLUS  
 DOCUMENT NUMBER: 90:206349  
 ORIGINAL REFERENCE NO.: 90:32831a,32834a  
 TITLE: Improvements in or relating to heat exchangers  
 PATENT ASSIGNEE(S): Commissariat a l'Energie Atomique, Fr.  
 SOURCE: Brit., 6 pp.  
 CODEN: BRXXAA  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1533224	A	19781122	GB 1977-22054	19770525
FR 2353035	A1	19771223	FR 1976-16047	19760526
FR 2353035	B1	19810417		
US 4106560	A	19780815	US 1977-797826	19770517
NL 7705624	A	19771129	NL 1977-5624	19770523
DE 2723420	A1	19771215	DE 1977-2723420	19770524
BE 855008	A1	19770916	BE 1977-177876	19770525
JP 52145853	A	19771205	JP 1977-60533	19770526
PRIORITY APPLN. INFO.:			FR 1976-16047	A 19760526
OS.CITING REF COUNT:	2	THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)		

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y  
STN INTERNATIONAL LOGOFF AT 18:00:11 ON 08 AUG 2009